Appl. No. 10/726,305 Reply to Office Action dated October 13, 2004

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

Claim 1. (currently amended) A process for producing an artificial bone model in accordance with a selective laser sintering process which comprises extending a powder material for sintering comprising 30 to 90 parts \(\frac{9}{2} \) by weight of powder of a synthetic resin and 10 to 70% by weight of an inorganic filler to form a thin layer and irradiating a portion of the thin layer of the powder material for sintering in a shape formed based on tomographic information of a natural bone with laser light so that the powder material for sintering of the irradiated portion of the thin layer is sintered, the extension of the powder material for sintering to form the thin layer and the irradiation of the portion of the thin layer with laser light for sintering being conducted repeatedly, wherein the artificial bone model when cut is similar to a natural bone when cut.

Claim 2. (original) A process according to Claim 1, wherein the powder of a synthetic resin comprises fine particles having a spherical shape.

Claim 3. (currently amended) A process according to Claim [[1,1]] wherein the artificial bone model is used for the educational training of an individual studying a bone, the process comprising: obtaining an artificial bone model produced by the process of Claim 1 and training the individual based on the artificial bone model instead of a natural bone.

Claim 4. (currently amended) A process according to Claim [[1,]] wherein the artificial bone model is used for studying a plan for curing before a surgical operation, the process comprising: obtaining an artificial bone model of a portion of a bone produced by the process of Claim 1, studying the artificial bone model by cutting, connecting or butting the artificial bone model, and deciding on a plan for said operation.

Claim 5. (original) A process according to Claim 1, wherein the average diameter of fine particles of the powder of a synthetic resin is in a range of 5 to 200µm.

- Claim 6. (currently amended) A process according to Claim 1, wherein the powder of the synthetic resin is [[the]] a powder of at least [[a]] one resin selected from the group consisting of nylons a nylon, polycarbonates a polycarbonate, polyesters a polycarbonate, polyesters a polycarbonate, polyester, polyester, polyectals a polyacetal, polyethylene, polypropylene, polyvinyl chloride, polystyrene, polybutylene, an ABS resins resin, a cellulose-based resins resin, an acrylic resins resin, an epoxy resins resin and fluororesins a fluororesin.
- Claim 7. (currently amended) A process according to Claims

 Claim 1, wherein the powder of the synthetic resin is powder of a nylon resin.
- Claim 8. (original) A process according to Claim 1, wherein the inorganic filler is glass beads.
- Claim 9. (currently amended) A process according to Claim 1 for producing an artificial bone model of radiolucent areas in human bone according to Claim [[1]], wherein the portion of the thin layer irradiated with the laser light is in a shape based on CT data of the area from the tomographic information of a natural bone [[is]] that has been reversed.

Claim 10. (original) An artificial bone model produced by the process according to Claim 1.

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- Claim 11. (original) An artificial bone model produced by the process according to Claim 9.
- Claim 12. (original) A process according to Claim 6, wherein the average diameter of fine particles of the powder of a synthetic resin is in a range of 5 to $200\mu m$.
- Claim 13. (original) A process according to Claim 12, wherein the synthetic resin is powder of a nylon resin.
- Claim 14. (original) A process according to Claim 12, wherein the powder of the synthetic resin comprises fine particles having a spherical shape.
- Claim 15. (original) A process according to Claim 14, wherein the inorganic filler is glass beads.
- Claim 16. (currently amended) A process according to Claim 15 for producing an artificial bone model of radiolucent areas in human bone, wherein the artificial bone model of radiolucent areas in human bone is obtained by reversing portion of the thin

layer irradiated with the laser light is in a shaped based on CT data of the area from the tomographic information of a natural bone that has been reversed.

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- Claim 17. (original) An artificial bone model produced by the process according to Claim 15.
- Claim 18. (original) An artificial bone model produced by the process according to Claim 16.
- Claim 19. (new) An artificial bone model according to Claim 17, wherein said artificial bone is a model of a bone including a tumor or an osteoporosis.
- Claim 20. (new) An artificial bone model according to Claim 17, wherein said artificial bone model is a model of a portion of a larynx.
- Claim 21. (new) A process according to Claim 16, wherein the reversed CT data corresponds to a radiolucent area inside the natural bone, said area being selected from the group consisting of an antrum, a canal and a nerve.
- Claim 22. (new) A process according to Claim 21, wherein the radiolucent area inside the natural bone is an area selected from the group consisting of a semicircular canal, a cochlear

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duct and a facial nerve.

Claim 23. (new) A process according to Claim 4, wherein the portion for the surgical operation is a defect of a bone and an implant material for butting a defect of the bone, which is prepared based on the artificial bone model, and is prepared prior to the surgical operation.

Claim 24. (new) An artificial bone model according to Claim 17, wherein said artificial bone model is selected from the group consisting of a bone model which three-dimensionally reproduces steric shapes of a natural bone and has a real size; a bone model which is magnified or reduced from the actual dimensions of a natural bone; a bone model which is a mirror image of a natural bone; and a bone model which precisely and accurately reproduces the density of a natural bone.